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1 IN THE UNITED STATES DISTRICT COURT  
2 FOR THE NORTHERN DISTRICT OF OKLAHOMA

3  
STATE OF OKLAHOMA, ex rel, )  
4 W.A. DREW EDMONDSON, in his )  
capacity as ATTORNEY GENERAL )  
5 OF THE STATE OF OKLAHOMA, )  
et al. )

6 )  
Plaintiffs, )

7 )  
V. ) No. 05-CV-329-GKF-SAJ

8 )  
9 TYSON FOODS, INC., et al., )  
)

10 Defendants. )

11

12

13 REPORTER'S TRANSCRIPT OF PROCEEDINGS

14 MARCH 10, 2008

15 PRELIMINARY INJUNCTION HEARING

16 VOLUME VII

17

18 BEFORE THE HONORABLE GREGORY K. FRIZZELL, Judge

19

20 APPEARANCES:

21 For the Plaintiffs: Mr. Drew Edmondson

Attorney General

22 Mr. Robert Nance

Mr. Daniel Lennington

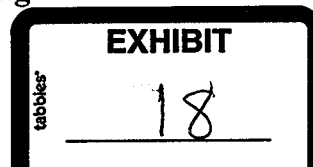
23 Ms. Kelly Hunter Burch

Mr. Trevor Hammons

24 Assistant Attorneys General

313 N.E. 21st Street **Hearing, Day 6 3/10/2008**

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1 A. Well, if we worked on that list, increasing soil pH which  
2 is the same as neutralizing soil acidity. That's the same  
3 process you'd achieve by adding agricultural limestone to a  
4 soil, neutralizing soil acidity. Adding organic matter to the  
5 soil and improve soil tilth which is the workability or the  
6 structure, if you will, of the soil. As you increase organic  
7 matter, you improve the water retention capacity of the soil  
8 and promote microbial activity. It promotes aggregation of  
9 soil particles, that's simply how the soil particles stick  
10 together in larger units which is a positive characteristic.  
11 That characteristic promotes water infiltration. It promotes  
12 macrofauna, as it says on the list. Those are like earthworms  
13 and other larger animals that live in the soil. And porosity  
14 which we spoke about earlier today, it helps improve porosity  
15 of the soil.

16 Q. All right. Dr. Coale, if forage on a pasture does not  
17 need any of the fertilizer nutrients in litter that are  
18 identified on the left-hand side of this exhibit, does --  
19 excuse me, can poultry litter use improve the soil by virtue of  
20 these conditioning properties listed on the right-hand side of  
21 the exhibit?

22 A. Yes, they can.

23 Q. Is it necessary for poultry litter to be tilled into the  
24 soil in order for the soil to receive these beneficial changes  
25 from litter?

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1 A. No, it's not.

2 Q. Dr. Coale, are you familiar with grazing and haying  
3 pasture systems such as those that are present in the Illinois  
4 River Watershed?

5 A. Yes.

6 Q. What are the primary crops in this type of system?

7 A. Bermuda grass, tall fescue.

8 Q. Is the land application of poultry litter beneficial to  
9 these pasture systems?

10 A. Yes, it is.

11 Q. Why?

12 A. Well, the primary benefit derived from poultry litter  
13 application and what benefits the farmer in operating the  
14 system is the nitrogen supplying capacity of the poultry  
15 litter. Supplying nitrogen to the crop, which is probably the  
16 element in most high demand by the crop, can be achieved from  
17 poultry litter being applied to the pasture.

18 Q. In his opening statement, Mr. Ryan acknowledged that some  
19 of the poultry operators have had poultry litter applied to  
20 their pastures that are in excess of 65 STP. Dr. Coale, even  
21 if the soil is at 65 soil test phosphorus, can poultry litter  
22 still provide a benefit to the soil and the forage?

23 A. I assume we're talking about 65 STP as from the Oklahoma  
24 full testing laboratory?

25 Q. Yes, OSU standard 65 STP.

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1 A. Okay. I just want to make sure we've got the same number,  
2 okay.

3 Q. So even if the soil is at OSU 65 STP, can poultry litter  
4 still provide a benefit to the soil and the forage?

5 A. Yes, it can.

6 Q. Is there a point at which the application of poultry  
7 litter will actually do harm to the soil or harm to the forage?

8 A. Under application rates commonly used, not that I'm aware  
9 of.

10 Q. Now, plaintiffs have offered the proposition in this  
11 hearing that land applying poultry litter on soils of 65 STP or  
12 higher is not agricultural use, but is mere waste disposal.

13 Dr. Coale, does 65 STP define the line between agricultural use  
14 of poultry litter and waste disposal?

15 A. I do not believe it does because it's only focusing on one  
16 very small component, that would be the phosphorus component of  
17 litter.

18 Q. Has the USDA Natural Resources Conservation Service  
19 developed criteria for nutrient management?

20 A. Yes, they have.

21 Q. Is that what we call the Code 590?

22 A. Yes.

23 Q. Can you identify what the objectives are for the Code 590?

24 A. The Code 590 is designed to provide guidance for  
25 application of nutrients to agricultural land, to assure that

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1 there's enough nutrients there to supply the crop to reach the  
2 yield goals you wish to reach as a producer and also to help  
3 protect the environment by helping assure that there isn't  
4 excess nutrients leaving the landscape and getting into water  
5 bodies.

6 Q. Have some states worked with the NRCS to adapt the Code  
7 590 to fit their individual needs?

8 A. Yes, they have.

9 Q. Is Oklahoma one of those states?

10 A. I believe it is.

11 Q. Now, do some states use their own phosphorus index?

12 A. Yes.

13 Q. All right. Can you define for us conceptually what is a  
14 phosphorus index?

15 A. A phosphorus index is a site specific assessment tool  
16 where the person conducting the assessment would take many  
17 characteristics of a site, both physical and managerial  
18 characteristics of a site into consideration to assess whether  
19 there is a large source of phosphorus on that site, on that  
20 field or subfield that they need to be concerned about. And  
21 then on the other hand, whether there are significant realistic  
22 transport pathways available for which that phosphorus may  
23 potentially move off the site.

24 Q. These criteria you just described, are they evaluated on a  
25 field-by-field basis?